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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,647	11/25/2003	James Henry DeVore	60,446-243;03ZFM049	5646

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EXAMINER

LE, DAVID D

ART UNIT

PAPER NUMBER

3681

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/721,647

Applicant(s)

DEVORE ET AL.

Examiner

David D. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 5, 7-12 and 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 13 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/25/03</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/721,647, filed on 25 November 2003. Claims 1-17 are pending.

### Documents

2. The following documents have been received and filed as part of the patent application:

- Information Disclosure Statement, received on 11/25/03

### *Election/Restrictions*

3. Applicant's election without traverse of Species A, Figs. 1 and 2, claims 1-4, 6, 13, and 17, in the reply filed on 14 March 2005 is acknowledged. Accordingly, claims 5, 7-12, and 14-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species.

### *Drawings*

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "60" has been used to designate both a second sensor and a torsional damper. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

5. The disclosure is objected to because of the following informalities:

- Paragraph [24], line 2 recites “second sensor 60”; and
- Paragraph [28], lines 1-2 recites “a torsional damper 60”.

These are distinct structural elements; therefore, they require different reference characters. Appropriate correction is required.

### *Claim Objections*

6. Claim 1 is objected to because of the following informalities:

- Line 8, “fist sensor” should be --first sensor--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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**8. Claims 1-4, 6, 13, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 6,151,978 to Huber.**

Claims 1-4, 6, 13, and 17:

Huber (Fig. 1; column 1, line 66 – column 6, line 4) discloses a shift by wire vehicle transmission comprising:

- An automated mechanical transmission (14) shiftable between a first and a second gear ratio;
- A first component (16);
- A second component (20) movable relative said first component;
- A first sensor (40) adjacent said first component;
- A second sensor (42) adjacent said second component;
- A controller (32) in communication with said first sensor and said second sensor, said controller operable to determine a relative movement between said first component and said second component indicative of an approximately zero torque condition to initiate a shift between said first and said second gear ratio (i.e., column 2, line 56 – column 3, line 26);
- Wherein said first and second sensors are speed sensors (i.e., column 3, lines 21-26);
- Wherein said controller identifies a speed irregularity signature generated by said first and second sensor (i.e., column 2, lines 56-64, when zero torque condition has not been achieved);

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- Wherein said controller identifies a first noise signature component indicative of an approximately zero torque condition (i.e., column 2, line 56 – column 3, line 7); and
- Wherein said first component is a shaft (16).

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Fischer et al. (U. S. Patent Application No. US 2001/0035061 A1) teaches an arrangement for a torque-free shifting of a transmission.
- Markyvech et al. (U. S. Patent No. 5,508,916) teaches a control for engagement of positive clutches in automated mechanical transmission system.
- Palmeri et al. (U. S. Patent No. 5,582,558) teaches a speed control that assists an operator in shifting comprising an electronic control unit, which modifies the engine fueling to achieve a zero torque load.
- Sayman (U. S. Patent No. 6,246,941) teaches a method of engaging and disengaging transmission gears by obtaining a zero torque load at the interface between the engine and transmission.
- Mach et al. (U. S. Patent No. 5,566,070) teaches a control method/system for sensing deflecting-type gear neutral signal errors in an automated mechanical transmission system.

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- Nordgard (U. S. Patent No. 5,993,355) teaches a control system for an automatically actuated clutch, as shown in Fig. 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 703-305-3690 or 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 703-308-0830 or 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
ddl

  
CHARLES A. MARMOH  
SUPERVISORY PATENT EXAMINER  
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